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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/813,042	03/19/2001	Li T. Wang	062891.0520	1363

7590 - 11/14/2005

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EXAMINER
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TRAN, KHANH C

ART UNIT	PAPER NUMBER
2631	

DATE MAILED: 11/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/813,042	<b>Applicant(s)</b> WANG, LI T. 	
	<b>Examiner</b> Khanh Tran	<b>Art Unit</b> 2631	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 26 August 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 19-21 is/are allowed.
- 6) ☒ Claim(s) 1,7,8,13-15,17 and 18 is/are rejected.
- 7) ☒ Claim(s) 2-6,9-12 and 16 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 March 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. The Amendment filed on 08/26/2005 has been entered. Claims 1-21 are pending in this Office action.

### ***Response to Arguments***

2. Applicant's arguments, see pages 7-8 of the Amendment, filed on 08/26/2005, with respect to the rejection(s) of claim(s) 1, 3 and 15 under 35 U.S.C 102(b), of claims(s) 2, 6, 8-11, 13 and 17 under 35 U.S.C 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Cao et al. U.S. Patent 5,864,584.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 8 and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Cao et al. U.S. Patent 5,864,584.

Regarding claim 1, Cao et al. invention is directed to a system and method for permitting simultaneous communications between a plurality of drivers and a plurality of receivers using one transmission line. Referring to figure 1, in column 2 lines 50-65, there is illustrated a preferred embodiment of the present invention, which permits a simultaneous transmission of two separate digital signals to be communicated from chip 101 to chip 102. Chip 101 includes driver A and driver B.

In column 4 lines 5-67, also see table 1, driver A and driver B provide first data signal and second data signal.

In submode 2, logical "0s" are driven by both Drivers A and B. This 0.0 voltage is therefore also present at node 104, along transmission line 103 and node 107. Hence, the transmission line is driven to 0.0 voltage.

In submode 4 (see column 5 lines 5-20), a logical "1" is driven by Driver A while a logical "0" is driven by Driver B. This results in a voltage of 1.67 volts, because of the voltage divider circuit discussed above, at node 104, transmission line 103, and node 107.

In submode 1 (see column 4 lines 30-50), both Drivers A and B are transmitting a logical "1", which results in a voltage level at DROUTA and DROUTB of 2.5 volts. This 2.5 volts is also present at node 104 and along transmission line 103 and at node 107.

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Regarding claim 8, claim 8 is rejected on the same ground as for claim 1 because of similar scope. Furthermore, referring to figure 1, drivers A and B correspond to the claimed first amplifier and second amplifier.

Regarding claim 15, claim 15 is rejected on the same ground as for claim 1 in view of claim 8 because of similar scope.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 7, 14 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cao et al. U.S. Patent 5,864,584.

Regarding claim 7, as recited in claim 1, the transmission line 103 is driven to 0 volt, 1.67 volts, and 2.5 volts.

Cao et al. does not teach the values are similar to the voltage levels as claimed in the application claim.

However, MPEP Section 2144.05 guides that a *prima facie* case of obviousness exists where the claimed ranges and prior art ranges do not overlap but are close enough that one skilled in the art would have expected them to have the same properties. *Titanium Metals Corp. of America v. Banner*, 778 F.2d 775, 227 USPQ 773 (Fed. Cir. 1985). Since the claimed voltage levels are

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approximate, one of ordinary skill in the art at the time of the invention would have recognized that the voltage levels as taught in Cao et al. are close enough to render the claimed limitations obvious.

Regarding claim 14, claim 14 is rejected on the same ground as for claim 7 because of similar scope.

Regarding claim 18, claim 18 is rejected on the same ground as for claim 7 because of similar scope.

5. Claims 13 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cao et al. U.S. Patent 5,864,584 in view of admitted prior art.

Regarding claim 13, Cao et al. does not teach the first amplifier and second amplifier being an open drain GTL (Gunning Transceiver Logic) buffer and SSTL (Stub Series Terminated Logic) as set forth in the application claim.

Nevertheless, as disclosed in Background of the Invention of the original disclosure, Applicant admits on page 2 that several binary logic standards such as Gunning Transceiver Logic (GTL) and Stub Series Terminated Logic (SSTL) defining the different voltage levels and timing requirements to allow receivers to resolve the logic zero and logic one signals. In view of that, it would have been obvious for one of ordinary skill in the art at the time of the invention that admitted figure 2 prior art of Choi invention can be modified to use the recited logic standards. The modification is obvious because the logic standards would

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precisely define different voltage levels and timing requirements, which are very critical in a logical circuit.

Regarding claim 17, claim 17 is rejected on the same ground as for claim 13 because of similar scope.

***Allowable Subject Matter***

6. Claims 2-6, 9-12 and 16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. Claims 19-21 are allowed.

The following is a statement of reasons for the indication of allowable subject matter:

Regarding claim 19, claim 19 is allowable over prior art of record since the cited references taken individually or in combination fails to particularly disclose a communication server comprising all elements as set forth in the claimed invention.

***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Krishnamurthy et al. U.S. Patent 6,366,122 B1 discloses "Tristate Driver For Integrated Circuit In Interconnects".

Quigley et al. U.S. Patent 5,371,424 discloses "Transmitter/Receiver Circuit And Method Therefor".

Barna U.S. Patent 6,160,421 discloses "Voltage Translator Circuit Which Allows For Variable Low Voltage Signal Translation".

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Khanh Tran whose telephone number is 571-272-3007. The examiner can normally be reached on Monday - Friday from 08:00 AM - 05:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammad Ghayour can be reached on 571-272-3021. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KCT

*Pham Cong Tran*

*11/09/2005*

Examiner KHANH TRAN